Supplementary File 1. Criteria of Fried frailty phenotype.

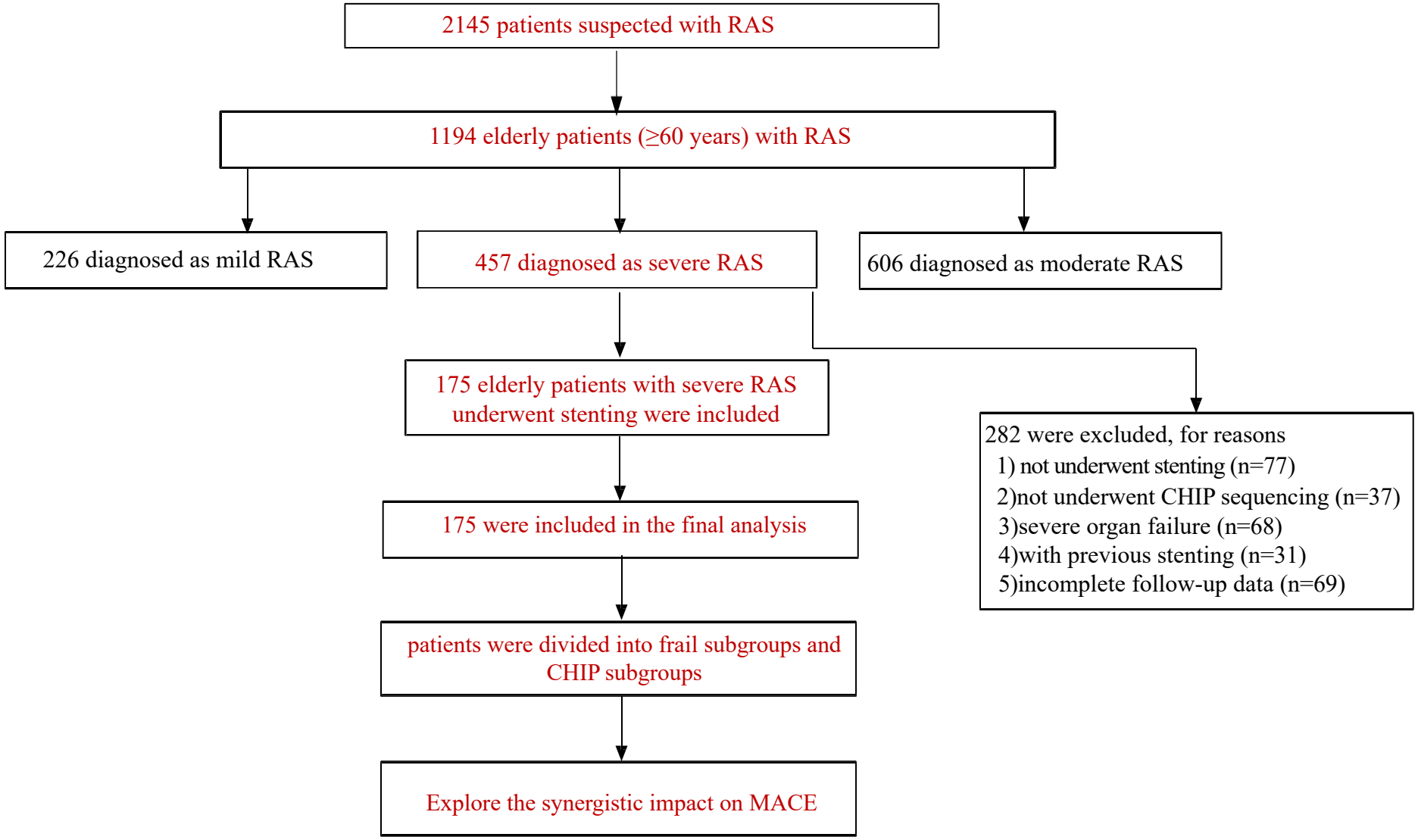
Item	Men	Women
Unintentional weight Loss	Weight loss more than 5% regular weight or 4.5 kilograms unintentionally in the past year	
Low Physical Activity Any of the described activities evaluated by short version of the Minnesota Leisure Time Activity questionnaire	< 383kcal per week Similar to taking a walk for less than 2.5 hours per week	< 270kcal per week Similar to taking a walk for less than 2 hours per week
Physical exhaustion Any phenomenon described by the right questions occurred for 3 days or more	Assessed by self-report using the following questions: 1. How often in the last week did you feel that everything you did was an effort? 2. How often in the last week did you feel that you could not get going?	
Muscle Weakness Grip strength measured by CAMRY electronic hand dynamometer for two times' average	Average grip strength: ≤29kg, BMI ≤24.0 ≤30kg, BMI 24.1-26.0 ≤30kg, BMI 26.1-28.0 ≤32kg, BMI > 28.0	Average grip strength: ≤17kg, BMI ≤23.0 ≤17.3kg, BMI 23.1-26.0 ≤18kg, BMI 26.1-29.0 ≤21kg, BMI > 29.0：
Slowed Gait The faster speed to walk 4 meters for two times, with or without a walking aid	Walk speed: ≤0.65m/s, Height ≤173cm ≤0.76m/s, Height > 173cm：	Walk speed: ≤0.65m/s, Height≤159cm： ≤0.76m/s, Height > 159cm：

Abbreviations: BMI, body mass index.

Table. Forty-six gene panel for targeted sequencing of CHIP mutations

Genes	Chromosomes	Exons	NM-Nr.
ABL1	9	4-6	NM_007313.3
ASXL1	20	13	NM_015338.5
ATRX	X	8,10-11,17-31	NM_000489.5
BCOR	X	2-15	NM_021946.4
BCORL1	X	1-12	NM_004333
BRAF	7	15	NM_005188.3
CBL	11	8-9	NM_000489.5
CBLC	19	9,11	NM_001123385.1
CDKN2A	9	1-3	NM_00077.4
CEBPA	19	1	NM_004364.4
CUX1	7	1-24	NM_001202543
DNMT3A	2	2-23	NM_022552.4
ETV6	12	1-8	NM_001987
EZH2	7	2-20	NM_004456.4
FBXW7	4	9-11	NM_033632
FLT3	13	13-15,20	NM_004119.2
GATA2	3	2-6	NM_033632
GNAS	20	8-10	NM_004119.2
IDH1	2	4	NM_032638.4
IDH2	15	4	NM_002168.3
IKZF1	7	2-8	NM_006060.6
JAK2	9	12,14	NM_004972
JAK3	19	13	NM_00215
KDM6A	X	1-29	NM_021140
KIT	4	2,8-11,13,17	NM_000222.2
KRAS	12	2-3	NM_033360.3
MPL	1	10	NM_005373.2
MYD88	3	3-5	NM_002468
NOTCH1	9	26-28,34	NM_017617
NPM1	5	11	NM_002520.6

NRAS	1	2-3	NM_002524.4
PHF6	X	2-10	NM_032458.2
PTEN	10	5,7	NM_000314.8
PTPN11	12	3,13	NM_002834.4
RAD21	8	2-14	NM_006265
RUX1	21	2-9	NM_001754.4
SF3B1	2	13-16	NM_012433.3
SMC1A	X	2,11,16-17	NM_006306.4
SMC3	10	10,13,19,23,25,28	NM_005445.4
SRSF2	17	1	NM_003016
STAG2	X	3-35	NM_001042749
TET2	4	3-11	NM_001127208.2
TP53	17	2-11	NM_000546.5
U2AF1	21	2,6	NM_006758.2
WT1	11	7,9	NM_024426.4
ZRSR2	X	1-11	NM_005089.3


2145 patients suspected with RAS
1194 elderly patients (≥60 years) with RAS
226 diagnosed as mild RAS
457 diagnosed as severe RAS
606 diagnosed as moderate RAS
175 elderly patients with severe RAS underwent stenting were included
282 were excluded, for reasons
1) not underwent stenting (n=77)
2)not underwent CHIP sequencing (n=37)
3)severe organ failure (n=68)
4)with previous stenting (n=31)
5)incomplete follow-up data (n=69)
175 were included in the final analysis
patients were divided into frail subgroups and CHIP subgroups
Explore the synergistic impact on MACE